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December 21, 2015

Gary Miller, Remedial Project Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-RA)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: Draft Work Plan for Rock Placement on the Time Critical Removal Action
Armored Cap, San Jacinto River Waste Pits Superfund Site, Channelview, Texas

Dear Gary:

As part of the Time Critical Removal Action (TCRA) for the San Jacinto River Waste Pits Site (Site), an armored cap was constructed adjacent to the San Jacinto River north of the Interstate 10 (I-10) bridge crossing. The United States Environmental Protection Agency (USEPA) performed an underwater inspection of the armored cap on December 9 and 10, 2015, and identified a small area on the northwestern part of the cap that requires placement of cap material (Figure 1).

In accordance with the email from you on December 16, 2015, McGinnes Industrial Maintenance Corporation and International Paper, the Respondents on the Site, propose the following:

- Delineation and collection of surface sediment samples in the area in which cap material will be placed (Work Area).
- Placement of cap material over the Work Area

The following provides details on the approach and procedures for completing the work.

Collection of Surface Sediment Samples in the Work Area

The following provides a surface sediment sampling plan for the Work Area and identifies the quality assurance and quality control (QA/QC) procedures that will be applied during the sediment sampling, sample analysis, data validation, information management, and reporting. Sampling described by this Work Plan will be conducted consistent with the approved Sediment Sampling and Analysis Plan (SAP; Integral and Anchor QEA 2010) and related appendices. Only those aspects unique to the sediment sampling to be conducted as part of this effort are addressed by this Work Plan.

Data Quality Objectives and Goals of the Study

The data quality objectives for this sampling are to collect surface sediment data in the Work Area. USEPA requested surface sediment samples be collected from the Work Area in an email to David Keith on December 16, 2015. Surface sediments will be collected from 0 to 6 inches (0 – 15 cm) at four locations within the Work Area. As described below, probing of the cap surface will be the primary means to define the final sample locations. Sediment samples will be collected following the probing event and delineation of the Work Area.

Schedule for Sediment Sampling

Following approval of this Work Plan, surface sediment samples will be collected, as soon as is practical, following the delineation of the Work Area through the probing exercise described below. All analysis will be undertaken in the typical analysis and validation time frame for this project, which requires 2 months following sample retrieval/collection.

Project Organization, Methods, and Quality Assurance Procedures

Sediment sampling and analyses described in this Work Plan will be conducted in full compliance with the Sediment SAP (Integral and Anchor QEA 2010) and related appendices (including Appendix A, the Field Sampling Plan), in the context of the objectives that are relevant to this task. The 2010 Sediment SAP describes the means to achieve all QA/QC requirements and documentation articulated by USEPA's guidance for preparation of quality assurance project plans and field sampling plans (USEPA 1998, 2001); these specifications will be applied to the collection, analysis, QA review, data management, validation, and

reporting of the information generated as described in this draft addendum. Sampling personnel will comply with the overall Health and Safety Plan (HASP) (Anchor QEA 2009), Addendum 2 to this overarching HASP (Attachment A1 to the Sediment SAP), and the HASP Addendum provided in Attachment 1 to Draft Addendum 3 to the Sediment SAP.

Delineation of the Work Area and Identification of Sample Locations

Probing will be conducted in order to delineate the Work Area. Probes will be advanced at approximate 5-foot intervals along a series of transects to determine any locations in which cap material at the specific thickness is not present. Transects will be spaced approximately 5 feet apart.

GPS coordinates will be collected to define the perimeter of the Work Area and a wooden survey stake with flagging will be driven at locations along this perimeter. Four sediment sampling locations will be identified within the Work Area. The locations will be configured so the four surface sediment samples are evenly paced on a lateral basis within the Work Area.

Placement of Geotextile and Armor Rock

After the surface sediment sampling, geotextile and armor rock will be placed over the Work Area, with overlap beyond the boundaries of the Work Area as described below. As part of the TCRA planning for cap maintenance, two stockpiles of armor rock (armor rock C and armor rock D) were purchased and staged near the TCRA Site. Both armor rock C and armor rock D are larger than the armor rock A used in this portion of the armored cap. Non-woven geotextile will be placed over the Work Area, with a minimum 1-foot thickness of armor rock C on top of the geotextile. Geotextile seams will be either sewn before deployment or overlapped in accordance with supplier recommendations, or at least 2 feet, whichever is greater. The final extent of the cover will be such that there will be at least 5 feet of overlap of the geotextile into areas surrounding the Work Area.

Work will be conducted by the Respondents' on-call contractor, USA Environment (USA). Based on discussions with USA, access to the Work Area from the land side is necessary due

to shallow water conditions. Consistent with previous land-based construction at the TCRA Site, work will be conducted as follows:

- Rock will be delivered to the TCRA Site using dump trucks to deliver material to a location in the Texas Department of Transportation right-of-way adjacent to the TCRA cap.
- Small equipment will be used to move rock from the delivery location to a stockpile near the Work Area.
- The rock will be transferred from the stockpile into the Work Area using a long-reach excavator working on mats to limit ground contact pressure.
- Work will be done during low water conditions, which are both tide- and weather-dependent at the TCRA Site.

The construction duration is estimated to be 1 to 2 weeks.

Schedule

With USEPA's approval, the tentative schedule is to complete the delineation of the area of interest and surface sediment sampling on Wednesday, December 23, 2015: mobilization of construction equipment and cap material will begin on Tuesday, December 29, 2015, assuming weather, tide, and access conditions allow those activities. Please let us know if you have any concerns with the proposed sampling and cap maintenance activities, and do not hesitate to contact me if you would like to discuss anything.

Sincerely,

David C. Keith
Project Coordinator
Anchor QEA, LLC

cc: Phil Slowiak, International Paper Company
Dave Moreira, McGinnes Industrial Maintenance Corporation
John Laplante, Anchor QEA, LLC

References

Anchor QEA, 2009. *Health and Safety Plan San Jacinto River Waste Pits Superfund Site*. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency, Region 6. Anchor QEA, Ocean Springs, MS.

Integral and Anchor QEA, 2010. *Sampling and Analysis Plan: Sediment Study San Jacinto River Waste Pits Superfund Site*. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency, Region 6. Integral Consulting Inc., Seattle, WA, and Anchor QEA, Ocean Springs, MS.

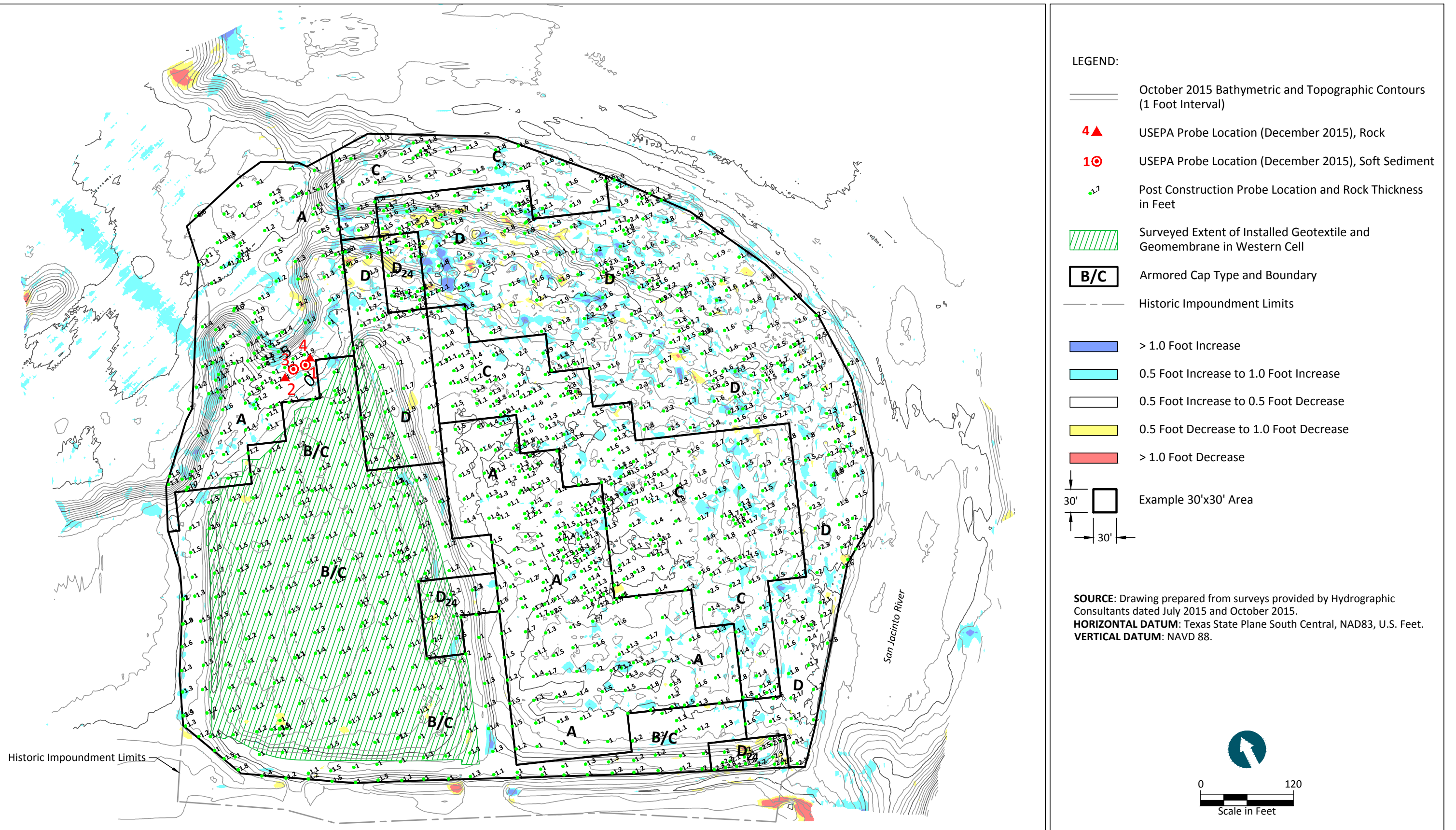
Integral and Anchor QEA, 2013a. Remedial Investigation Report, San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency, Region 6. Integral Consulting Inc., Seattle, WA, and Anchor QEA, Ocean Springs, MS. May 2013

Integral and Anchor QEA, 2015. Draft Addendum 3 to the Sediment Sampling and Analysis Plan (SAP) for Additional Sediment Sampling within USEPA's Preliminary Site Perimeter, San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency, Region 6. Integral Consulting Inc., Seattle, WA, and Anchor QEA, LLC, Ocean Springs, MS. October.

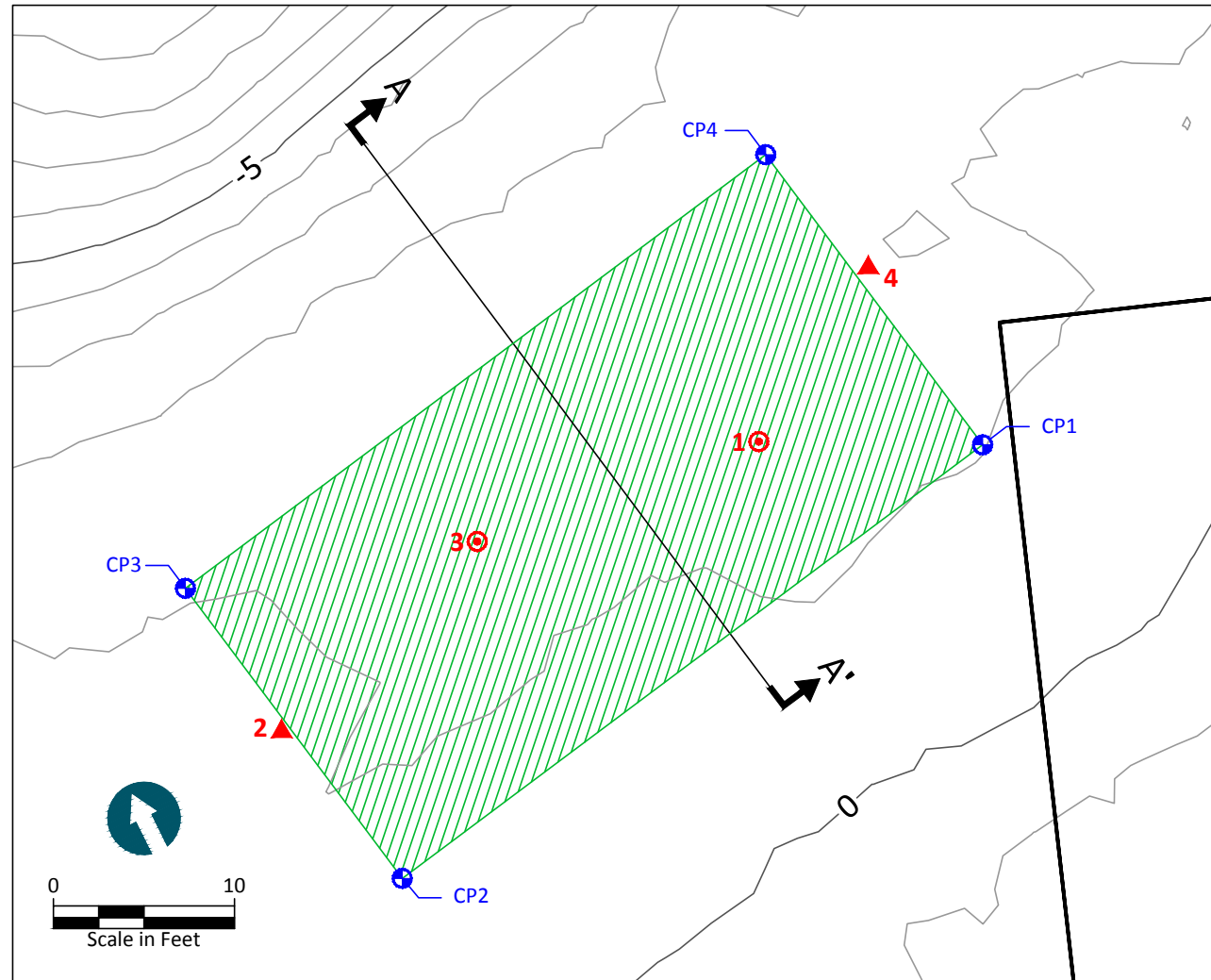
USEPA (U.S. Environmental Protection Agency), 1998. *EPA Guidance for Quality Assurance Project Plans*. EPA QA/G-5. U.S. Environmental Protection Agency, Washington, DC.

USEPA, 2001. *EPA Requirements for Quality Assurance Project Plans*. EPA QA/R-5.

FIGURES



M:\CAD\Projects\0557-mcginnes industrial maintenance corp\san jacinto waste pits\quarterly inspection reports\2015-10\0557-QIR-005.dwg Rock Placement Area
Dec 15, 2015 8:56am dholmer



SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated July 2015 and October 2015.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.

LEGEND:

- October 2015 Bathymetric and Topographic Contours (1 Foot Interval)
- 4▲ USEPA Probe Location (December 2015), Rock
- 1⊙ USEPA Probe Location (December 2015), Soft Sediment
- Geotextile and Rock Placement Area
- B/C Armored Cap Type and Boundary
- CP4 ● Control Point

CONTROL POINTS		
POINT #	NORTHING	EASTING
CP1	13857773.6	3216973.5
CP2	13857766.4	3216934.2
CP3	13857786.1	3216930.6
CP4	13857793.3	3216970.0

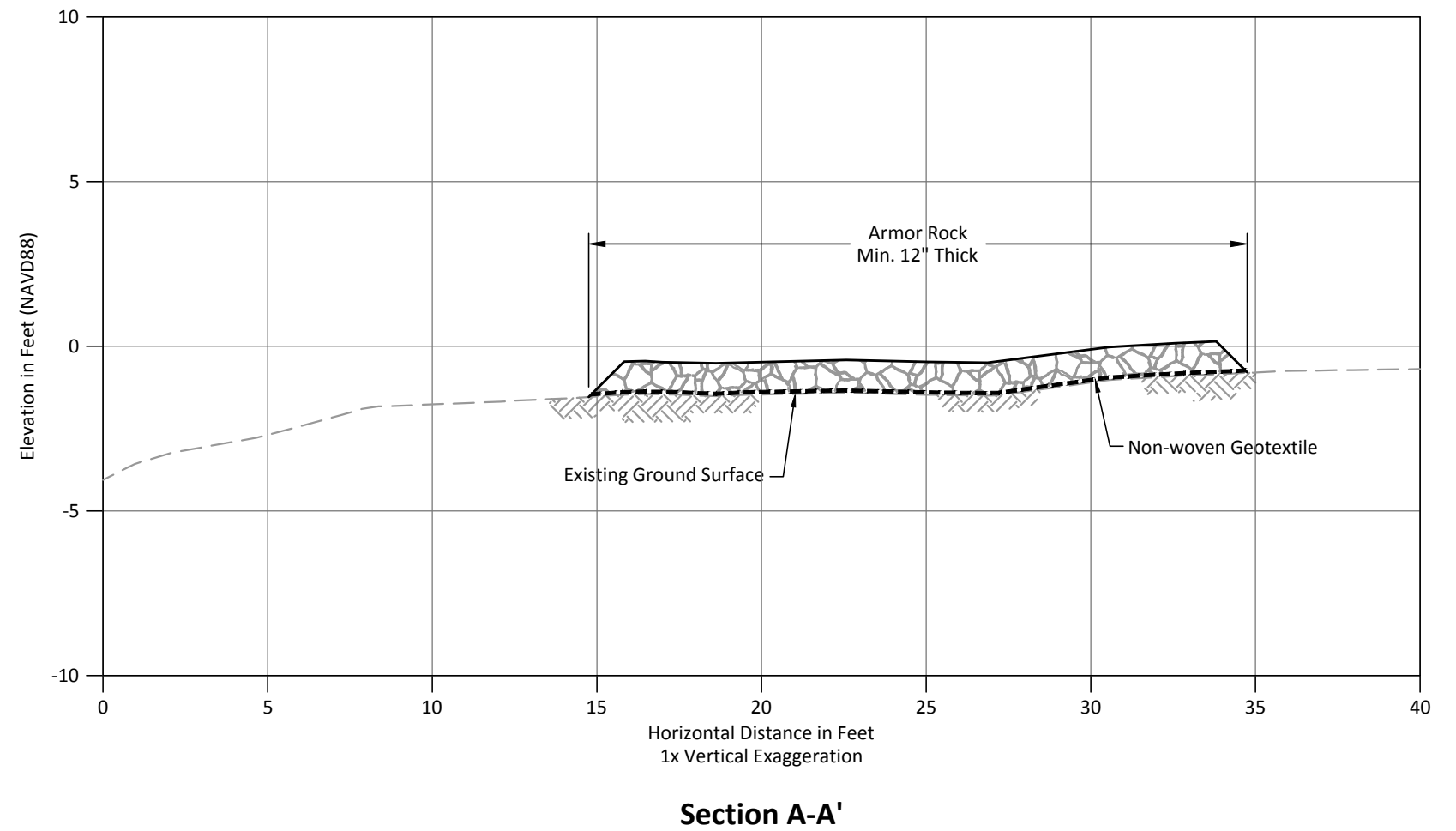


Figure 2
Rock Placement Area
Post TCRA Inspection
San Jacinto River Waste Pits Superfund Site

TABLES

Table 1
Analytes, Method Reporting Limits, and Method Detection Limits for Sediment Samples

Analyte	CAS Number	Method Detection Limit ^a	Method Reporting Limit ^a
Conventionals			
Grain size distribution	--	NA	NA
Total organic carbon (percent)	--	0.02	0.05
Organics			
Dioxins/furans (ng/kg-dry weight)			
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	35822-46-9	0.0539	2.5
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.0482	2.5
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.0561	2.5
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	39227-28-6	0.0616	2.5
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	0.0688	2.5
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	57653-85-7	0.0500	2.5
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	0.0489	2.5
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	19408-74-3	0.0525	2.5
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	0.0521	2.5
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	0.0501	2.5
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	40321-76-4	0.0656	2.5
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	0.0490	2.5
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	0.0444	2.5
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	1746-01-6	0.0664	0.5
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	0.0726	0.5
Octachlorodibenzo- <i>p</i> -dioxin	3268-87-9	0.0990	5
Octachlorodibenzofuran	39001-02-0	0.0782	5
Total tetrachlorinated dioxins	41903-57-5	NA	0.5
Total pentachlorinated dioxins	36088-22-9	NA	2.5
Total hexachlorinated dioxins	34465-46-8	NA	2.5
Total heptachlorinated dioxins	37871-00-4	NA	2.5
Total tetrachlorinated furans	30402-14-3	NA	0.5
Total pentachlorinated furans	30402-15-4	NA	2.5
Total hexachlorinated furans	55684-94-1	NA	2.5
Total heptachlorinated furans	38998-75-3	NA	2.5

Notes

-- = information not available

NA = not applicable

a - Method detection limits and method reporting limits are updated periodically by the laboratories. Limits that are in effect at the laboratory at the time of analysis will be used for sample analysis and data validation. These may differ slightly from the control limits shown in this table.

Table 2
Sample Containers, Preservation, and Holding Time Requirements

Matrix	Container ^a		Laboratory	Parameter	Preservation	Holding Time	Sample Size ^b
	Type	Size					
Sediment							
	WMG	8 oz	TBD	TOC	4±2°C	28 days	1 g
	WMG	16 oz		Grain size	4±2°C	6 months	100 g
	WMG	8 oz	TBD	Dioxins/furans	4±2°C/Deep frozen (−20°C) ^c / −10°C ^d	1 year/1 year ^e	50 g
Equipment Filter Wipe Blanks							
	AG	4 oz	TBD	Dioxins/furans	4±2°C	1 year/1 year ^e	3 wipe

Notes

AG = amber glass

TBD = to be determined

TOC = total organic carbon

WMG = wide mouth glass

a - The size and number of containers may be modified by the analytical laboratory.

b - Sample sizes may be modified one laboratory selection is made.

c - Samples will be shipped to the laboratory on ice at 4±2°C. Once received at the laboratory, samples will be stored at –20°C.

d - Extracts will be stored at –10°C.

e - Holding time for samples prior to extraction/ holding time for extracts.